Below is the set of amendment instructions to amend the Original Specification (filed on Apr.14, 2004, Application number 10/823,847) to make it become new Specification.

In original Specification, page 1, line 9, the paragraph starting with the words ""The "induction motor" mentioned here-----" should not get any underlining word and will be replaced by the following:

The "~~induction motor~~" " induction motor" mentioned in this application is the most commonly used kind of induction motor, it gets no electrical winding in its rotor assembly, only its stator gets electrical winding.

In original Specification, page 1, line 12, the paragraph starting with the words "Text definition of nonmagnetic material----" should not get any underlining word and will be replaced by the following:

" Textbook definition of "~~nonmagnetic material~~" "nonmagnetic material": materials whose permeabilities are the same as that for free space. (Like copper, aluminum)"

In original Specification, page 1, line 14, the paragraph starting with the words "Text definition of diamagnetic material----" should not get any underlining word and will be replaced by the following:

Textbook definition of "~~diamagnetic material~~" "diamagnetic material": materials that have permeabilities slightly less than that of free space.

Note: Those words get second time underlining are replacement words, it does not mean those words get underlining again.

In original Specification, page 2, line 1, the paragraph starting with the words "The open type system usually----" will be replaced by the following:

" The open type system usually handles bigger capacity than the former two systems. In the open type system, the motor is not sealed with compressor in a dome and the leak from the compressor crankshaft seal is a constant problem (FIG 2). In hermetic system ([[I]]including semi hermetic system), the whole motor and compressor are sealed with refrigerant in a dome. There is no leak problem but the ~~heating problem~~ spark, fire and red hot winding caused by electric short circuit of the motor electric winding ~~from the motor electrical winding~~[[is a]] are major ~~consideration~~ considerations. Because those can get refrigerant burned to cause a major failure of the refrigeration (a/c) system. This causes environmental pollution(the destroyed refrigerant must be processed then dumped) and it is expensive to repair the motor. The mike 8001 induction motor design can solve this situation by repositioning the dome inside the motor(compare the position of the dome in FIG.3 and FIG.4) to leave the motor electric winding outside the dome. It is easier to cool down the winding by

a fan or other means because it is not sealed inside a dome. To Seal a whole motor inside the traditional dome will limit the motor size, it will not be safe to put high power consumed electrical winding of the big motor with large capacity of flowing refrigerant in a completely sealed dome. The traditional hermetic system design will limit its capacity. The electrical wire entrance of the traditional dome of the hermetic (or semi hermetic) system gets the potential to cause leak. The open system will easily have the leak problem from the crankshaft entrance. "

In original Specification, page 2, line 7, the paragraph starting with the words "The electrical winding ----" will be deleted:

"The electrical winding in the motor generates heat, which can burn the motor and the refrigerant. This causes environmental pollution (the destroyed refrigerant must be processed then dumped) and it is expensive to repair the motor."

In original Specification, page 2, at the end of the section BACKGROUND OF THE INVENTION, add the following paragraph:

" According to EPA rule, for industrial or commercial system contains more than 50 lb refrigerant, a substantial leak is defined as 35% loss of charge per year and must be repaired within 30 days after discovery. That is 17.5lb refrigerant leakage to the atmosphere to destroy ozone level (HCFC phase-out by

the year 2030) or to cause global warming problem. With the mike 8001, 8001-1 design applied to the compressor motor (FIG.4) and to the valve control device (mentioned in the last paragraph of the section of DETAILED DESCRIPTION OF INVENTION, FIG. 8), there will be no chance to leak any refrigerant from the system."

In original Specification, page 2, line 11, the paragraph starting with the words "The mike 8001 induction motor design will solve ----" will be replaced by the following:

"The mike 8001 induction motor design will ~~solve the electrical winding heating problem~~ separate the refrigerant from the electrical winding to prevent refrigerant from getting burned by short circuit, overheat of the winding in the hermetic(or semi hermetic) system and there is no leak possibility in the new design because the mike 8001 design makes the new dome a completely sealed space (no electric wire entrance). ~~of the hermetic and semi hermetic system.~~ This design (mike 8001 induction motor design) also can make bigger capacity hermetic (also semi hermetic) system than it is now by using bigger motor."

In original Specification, page 2, line 15, the paragraph starting with the words "If we can put the stator----" will be replaced by the following:

-" ~~If we can put~~ The mike 8001 induction motor design puts the stator electrical winding along with [[its]] most part of each stator pole outside the dome, leaves the rest small part of each stator pole and the whole rotor assembly and compressor inside the dome ~~(or the end edge of the stator poles are in the same plane as the inside surface of the dome),~~ then we can ~~solve the stator electrical heating problem~~ separate electrical winding from the refrigerant and [[also]] there is no possibility of leaking ~~leak problem.~~ In other words, we reposition the original dome inside the motor as shown in FIG.4 (compare FIG.4 to FIG.3, the position of the dome has been changed). The stator poles go through the dome and the edge of the stator pole can be either in the same plane as the inside surface of the dome as shown in FIG.4-8 or it can go further into the dome as shown in FIG.4-4. The stator pole faces the rotor directly and there is nothing between the stator pole and rotor. In this way, we can solve the stator winding electrical short circuit problem and also there is no possibility of leaking. There is no electrical wire entrance to the new design dome because the electrical winding is outside the dome. With this way, we can use a bigger motor to make bigger capacity hermetic system, a capacity as open system is. The distance between stator pole and rotor will be the same as that in a traditional motor, motor efficiency will not be reduced. "

In original Specification, page 3, line 18, the brief description of the FIG. 5-1 will be replaced by the following:

" FIG.5-1 Cross-section view of FIG.5[[-1]] "

In original Specification, page 4, line 10, the brief description of the FIG.8 will be replaced by the following:

"[[Fig 8 a]] FIG. 8 the gas valve with mike 8001 induction motor design "

In original Specification, page 4, line 15, the paragraph beginning with the words " For clarity, I reconstructed the FIG.1----" will be replaced by the following:

"For clarity, I reconstructed the FIG.1 in the way as the FIG.3 so the motor part is easily to be seen and separated from the compressor assembly farther away. This FIG.3 is different from [[FIG2]] FIG. 2 (open system). The FIG.3 gets ~~no opening to the outside (no motor shaft entrance from outside)~~ no motor shaft entrance from outside. Everything is still sealed in the dome; just the direction of figure, direction of compressor piston, the shape of dome is modified from FIG.1 for clarity. "

In original Specification, page 5, line 3, the paragraph beginning with the words "The mike 8001 induction motor design (FIG.4)----" will be replaced by the following:

"The mike 8001 induction motor design (FIG.4) repositions the original dome inside the motor to put the stator electrical winding outside the dome (shown with heavy line) along with its most part of each stator pole, leaves the rest small part of each stator pole and the whole rotor assembly inside the dome with the compressor. The nonmagnetic (or diamagnetic) material made dome is welded to stator poles to leave most part of each stator pole and its electrical winding outside the dome and seal a small part of each stator pole and the whole rotor assembly inside the dome with the compressor. The stator pole actually go through the dome to face the rotor directly. There is nothing between the stator pole and rotor. The distance between the stator pole and rotor is the same as that in the traditional motor. Motor efficiency will not be reduced. The part of the dome, [[which]] that is surrounding the motor rotor assembly, should be nonmagnetic (or diamagnetic) material made, so the magnetic field generated by the electric winding in the motor will not be changed. The rest part of the dome can be made with materials other than nonmagnetic ([[and]] or diamagnetic) [[one]] material because the magnetic field in the motor will not be influenced by that part of the dome."

In original Specification, page 5, line 18, the paragraph beginning with the words "The end edge of the stator poles can ----" will be replaced by the following:

"The end edge of the stator poles can be in the same plane as the inside surface of the dome (like Fig.4-7, mike 8001-1 induction motor design, FIG.4-8 is the cross section view of FIG.4-7.)[[.]] or the edge of stator pole can go further into the dome(like FIG.4-3, mike 8001 induction motor design, FIG.4-4 is the cross section view of FIG.4-3). In both designs(mike 8001 and mike 8001-1 design) the distance between the edge of stator pole and rotor will be the same as that in a traditional motor, motor efficiency will not be reduced."

In original Specification, page 5, line 20, the one line paragraph beginning with the words "The cross section of FIG.4-7 is ----" is shown as below and will be deleted:

"The cross section of FIG.4-7 is shown on FIG.4-8"

In original Specification, page 6, line 5, the paragraph beginning with the words "The material of the part(which is inside----" will be replaced by the following:

" The material of the part (which is inside the motor) of the dome, that is surrounding the motor rotor assembly, should be nonmagnetic (or diamagnetic) materials made so the magnetic field generated by stator electrical winding will not be changed by the new position of the dome or the motor may not work, this is indicated in FIG.4-1. The thickness ~~of the part (which is welded to stator poles)~~ of the new dome, for the part that is welded to stator poles, should be minimum [[( ]]so stator poles can stay same depth as they was[[ )]] but other part of the dome can be thick. The stator poles also reinforce the new dome where they are welded together. The mechanic strength of the dome for supporting motor and compressor should be strong enough."

In original Specification, page 6, line 13, the paragraph beginning with the words "Because the stator is a laminated----" will be replaced by the following:

"Because the stator is a laminated structure as in FIG.6 (to reduce the eddy current), the refrigerant can leak through between stator pieces. We also need to weld stator pieces together (or any other way to seal those gaps between laminated stator pieces). The solder here we use to weld should be able to reduce the eddy current in the stator."

In original Specification, page 6, line 17, the paragraph beginning with the words "In order to make the repair job easier----" will be replaced by the following:

In order to make the new design motor repair job easier we can cut the stator poles in a way like FIG.7 (mike 8002 design). The dash line represents the cutting line. So the electrical winding and most part (not the whole part) of stator ~~Structure~~ structure can be detached from motor ~~and replaced~~ easily. Also it can be replaced easily. When the stator with the electric winding has been detached from the dome, the dome still remains completely sealed condition because the end part of the stator poles have been welded with the doom. In this [[way]] mike 8002 design, the efficiency of the motor [[may be]] is reduced due to the small [[air]] gap in the stator pole after the cutting. This design is only suitable for where the reliability is a major concern but not the motor efficiency.

In original Specification, page 7, line 3, the paragraph beginning with the words "The cross section view of FIG.7 is ----" will be replaced by the following:

"The cross section view of FIG.7 is shown on FIG.7-1. ~~The cross section view of FIG.7 is shown on FIG.7-1.~~ The stator part, which can be detached

from the dome, is show on FIG.7-2. The cross section view of FIG.7-2 is shown in FIG.7-3. After the cutting, the stator pole part left with the dome is shown on FIG.7-4. The cross section view of FIG.7-4 is shown on FIG.7-5."

In original Specification, page 9, in the section of ABSTRACTION OF DISCLOURE ,there is only one paragraph, it beginning with the words "The magnetic flux generated by ----" will be replaced by the following:

" The magnetic flux generated by stator electrical winding can flow inside motor stator structure, so ~~when we need magnetic force to make the rotor (the rotor without electrical winding) turn,~~ we really don't need to [[not]] put stator electrical winding and rotor in the same medium. We can separate them by ~~welding part of~~ repositioning the dome (compare the position of dome in FIG.3 to FIG.4) of a hermetic (or semi hermetic) refrigeration (or air condition) system inside the motor. Seal the rotor and compressor inside the dome ~~to stator poles to seal the rotor inside~~ and leave the troublesome stator electrical winding outside of the dome. This way, the compressor powered by this mike 8001(or 8001-1) induction motor design can be much safer and reliable to operate even in more critical environment (like pumping and compressing poison, dangerous gas). There will be no possibility of [[leak]] leaking, no short circuit, no overheating problem

from the electrical winding to cause refrigerant to get burned and it is easy, cheap to [[replace]] fix a motor with mike 8002 detachable stator design."